

February 9, 2005 A07261.02

Browman Development Company 100 Swan Way Suite 206 Oakland, California 94621-1459

Attention:

Mr. Jerry Neighbors

Subject:

Results of Phase II Assessment at a Site located Northeast of the Intersection of

Interstate 101 and Cochrane Road, Morgan Hill, California

Dear Mr. Neighbors:

This report presents the results of a Phase II investigation consisting of sampling and analysis of soil samples collected from a property located northeast of Interstate 101 and Cochrane Road in Morgan Hill, California. Soil samples were collected from the site based on the information contained in a Phase I environmental site assessment report dated June 2004 and prepared by The Twining Laboratories, Inc. (Twining). This assessment was authorized by Browman Development Company.

PROJECT HISTORY

The subject site (Site) is located on the northeast corner of the intersection of Interstate 101 and Cochrane Road in the city of Morgan Hill, California. The Site comprises five parcels totaling approximately 60 acres. Parcel APN No. 728-37-001 was being used as an active horse ranch at the time of our assessment. Parcel 728-37-002 consisted of an actively farmed land and a developed area with a residence, barn, shed, chemical tanks and chemical storage at the time of our assessment. Parcels 728-37-004, 005, and 007 were not developed with structures and were actively being farmed at the time of our assessment.

A Phase I, prepared by Twining in June 2004, identified a limited number of concerns and recommended further assessment of the site with respect to those concerns. The Twining Phase I contained the following conclusions:

- Because agricultural chemicals have been formulated and used on-Site, the possibility exists that site soils have been impacted by environmentally persistent chemicals; and
- Fill has been placed throughout the site occupied by the active horse ranch. The fill was taken from a Santa Clara Water District pipeline project and chemical analytical data are not available regarding the imported fill.

Browman Development - Highway 101 and Cochrane Road, Morgan Hill February 9, 2005

A07261.02 Page 2

Based on the results of the Phase I and Twining's recommendations, Twining was authorized by Browman Development Company to collect and analyze soil samples from selected areas of the site.

PURPOSE AND SCOPE

The purpose of this Phase II report is to document the collection and analysis of soil samples collected from the subject site and assess whether soil samples collected from the site contain concentrations of selected constituents which could be of environmental concern. The following work scope was performed:

- Hand-augered soil borings and collected soil samples from 12 locations at the site;
- Analyzed soil samples for selected constituents including metals, pesticides, herbicides and TRPH;
- Evaluated the soils data received from the analytical laboratory; and
- Prepared this report to document the collection of the soil samples and summarize the findings of this assessment.

INVESTIGATIVE PROCEDURES AND FINDINGS

This assessment consisted of a field investigation, a laboratory testing program, and preparation of this report. Standard operating procedures (SOPs), relevant to the field and laboratory activities, are described in Appendix A.

Soil Sampling

Soil samples were collected at twelve locations at the site. Four samples were collected at the horse ranch located on the north end of the site (Parcel 728-37-001), two samples were collected at a farm chemical mixing (Parcel 728-37-002) and storage area and the remaining samples were collected from farmed areas at the site. Soil samples were collected at a depth of one foot in the horse ranch area and at the surface and at two feet below ground surface (bgs) in the remaining sampling locations. Surface samples were collected by first scraping off any organic matter at the surface and then driving a stainless steel sampling sleeve into the soil. A hand auger was then used to advance the boring approximately two feet into the soil, at which depth the two foot deep sample was collected by driving a stainless steel sampling sleeve into the soil. Each sample was labeled, covered with teflon sheets on both ends of the sleeve and capped with plastic end caps. The samples were stored in an ice chest cooled with blue ice to approximately four degrees centigrade for transport to Twining's analytical laboratory. Soil sampling locations are shown on Drawing 2.

Laboratory Analysis

All samples were analyzed by Twining's State of California certified analytical laboratory. Samples collected from the horse ranch were analyzed for arsenic, cadmium, chromium, lead, nickel, zinc (EPA method 6010), pH and total recoverable petroleum hydrocarbons (TRPH) by EPA method 5520. Samples collected at the remaining sampling locations were analyzed for copper, lead, arsenic, zinc, TRPH, organophosphate pesticides (EPA method 8141), chlorinated phenoxy acid herbicides (EPA 8151) and organochlorine pesticides (8081).

FINDINGS

The results of the soil assessment are summarized in the following sections.

Soil Profile 1977 1976 Profile the second of the second profile appeties the second

Soil samples were collected to a depth of two feet. Soils encountered were brown sandy silts to silty sands with occasional gravels and cobbles from one to six centimeters in size.

Soil Sample Analytical Results

Laboratory analytical results for the soil samples are summarized in Table 1. Laboratory analytical data sheets and chain-of-custody documentation are attached to this report.

EVALUATION

A total of twelve (12) soil samples were tested. The pesticide 4,4 - DDE was found in the surface samples at sample locations S5 and S6 at concentrations of 0.092 milligrams per kilogram (mg/kg) and 0.07 mg/kg, respectively. These concentrations are below the applicable Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC) values for this constituent, i.e., 1 mg/kg and 0.1 milligrams per liter (mg/l), respectively. These concentrations are also below the Preliminary Remediation Goal (PRG) of 1.7 mg/kg set by the United States Environmental Protection Agency Region 9 (EPA). Diazinon was detected in the two foot deep sample at sample location S12 at a concentration of 0.97 mg/kg. This concentration is below the PRG concentration of 55 mg/kg. The remaining ten (10) soil samples were not-detected for the pesticides included in the soil sample analysis.

Browman Development - Highway 101 and Cochrane Road, Morgan Hill February 9, 2005

Chromium concentrations ranged from 43 mg/kg to 75 mg/kg. Soil samples with chromium concentrations greater than 50 mg/kg were analyzed for soluble chromium using the Waste Extraction Test (WET) method to assess whether these samples were above the hazardous STLC chromium concentration of 5 mg/l. The analytical results indicated that the soluble chromium concentrations were less than 0.2 mg/l. The total chromium concentrations were all also below the chromium TTLC of 500 mg/kg. All other constituents analyzed for had concentrations below applicable PRG, TTLC (total threshold limit concentrations) and/or STLC concentrations. Applicable PRG, STLC and TTLC limits are summarized in Table 1.

CONCLUSIONS

Twining makes the following conclusions based on the data developed during this assessment:

- Soil samples collected throughout the site had concentrations which were below the laboratory detection limit or which were below applicable PRG, TTLC and/or STLC concentrations for the constituents included in the soil sample analysis;
- The concentrations of chromium, ranging from 43 mg/kg to 75 mg/kg, appear to be background. The concentrations of chromium detected in the soil samples were below applicable TTLC and STLC values and appeared to be naturally occurring;
- Low concentrations of DDE were detected in soil samples collected near the farm chemical storage and mixing area. The concentrations of DDE were below applicable TTLC, STLC and PRG levels; and
- A low concentration of Diazinon was detected in one soil sample. This concentration of Diazinon is below applicable PRG levels.

LIMITATIONS AND NOTIFICATIONS

The purpose of a geologic/hydrogeologic study is to reasonably characterize existing site conditions based on the geology/hydrogeology of the area. In performing such a study, it is understood that a balance must be struck between a reasonable inquiry into the site conditions and an exhaustive analysis of each conceivable environmental characteristic. No investigation is thorough enough to describe all geologic/hydrogeologic conditions of interest at a given site.

Browman Development - Highway 101 and Cochrane Rd, Morgan Hill January 4, 2005

Conditions of interest may exist at the site that cannot be identified by visual observation alone. Where subsurface exploratory work is performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions or unsampled locations. If conditions of interest are not identified during performance of the work, such a finding should not be construed as a guarantee that such conditions do not exist at the site. No environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with the property. Performance of this investigation is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions with a property.

Our professional services were performed, our findings obtained, and our conclusions prepared consistent with generally-accepted environmental assessment practices in California at the time the work is performed. Our findings and the resulting report are solely for the use of our client and appropriate government regulatory agencies. Any use of our report by a third party is at that third party's sole risk.

CLOSING

Twining is pleased to provide environmental services to Browman Development Company. Please feel free to contact at Twining at (800) 268-7021 if you have any questions regarding this report or the project in general.

Sincerely,

THE TWINING LABORATORIES, INC.
Environmental and Geological Services Division

Jan Alfson, RG No. 4435

Senior Geologist

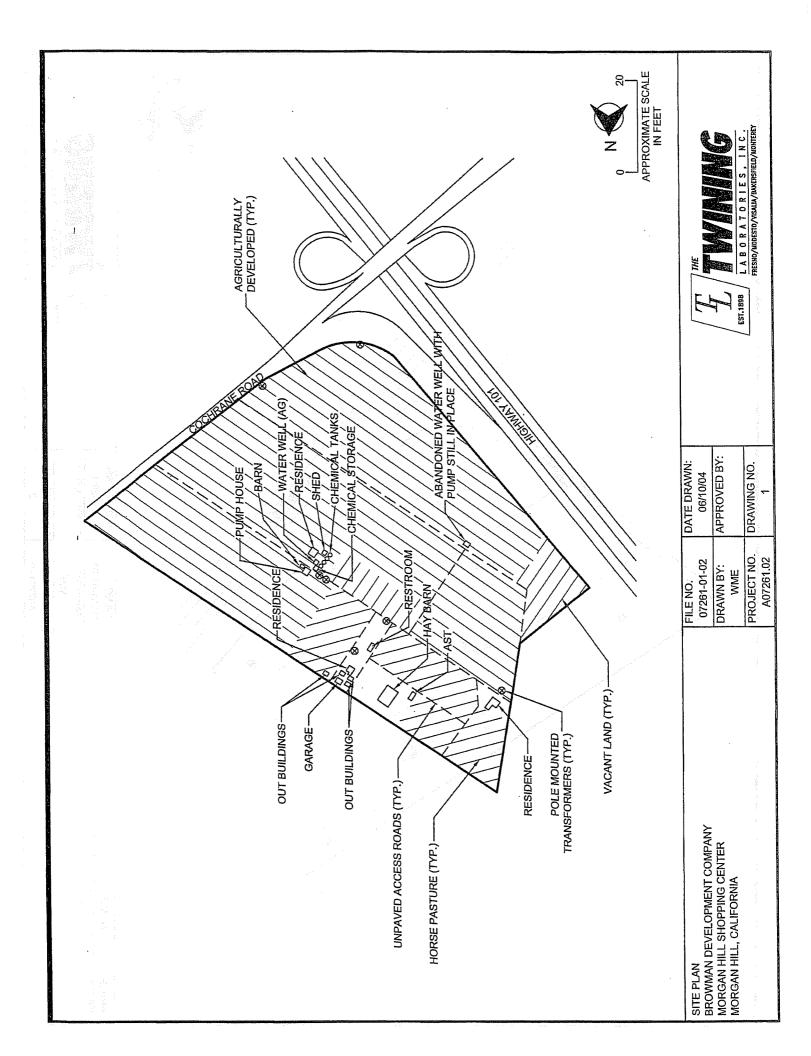
J:\phase П\Browman Morgan Hill\Browman Morgan Hill Phase II revised wpd.wpd

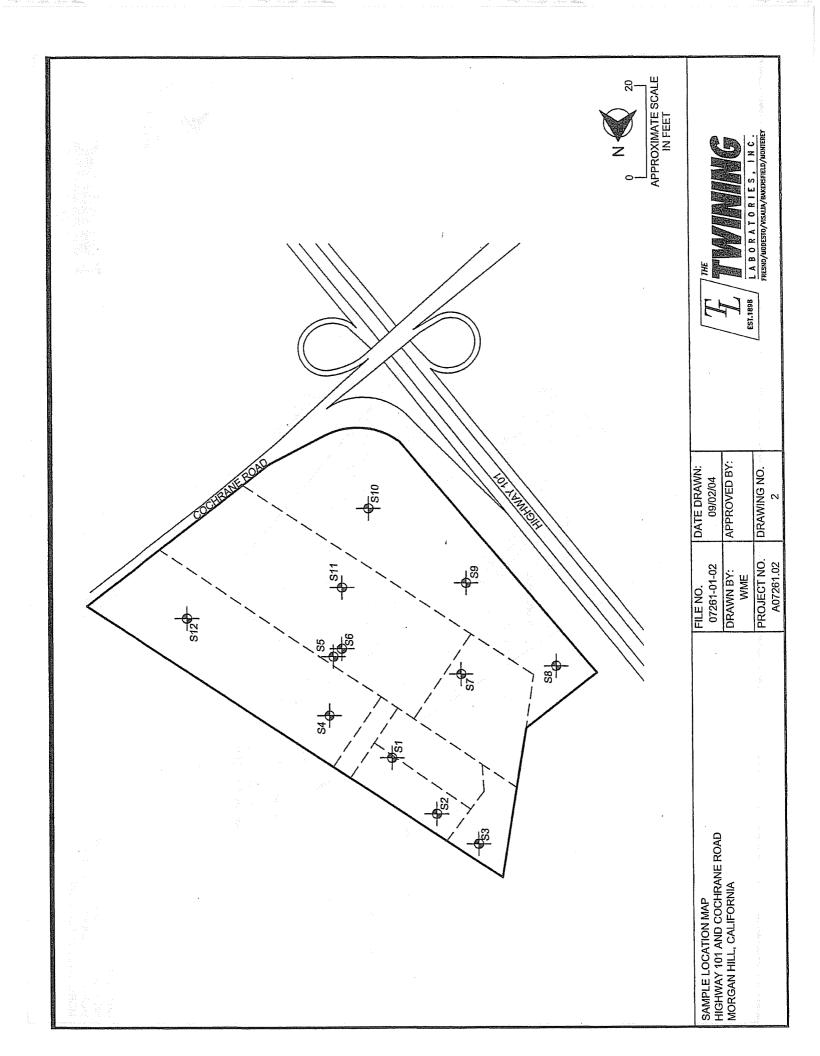
TABLE 1
SUMMARY OF SOIL SAMPLE ANALYTICAL RESULTS
BROWMAN DEVELOPMENT - MORGAN HILL PROPERTY
Results in milligrams per kilogram

Cr (soluble)

					(soluble)							
Sample/depth (feet)	As	As MDL	Cd	Cr	mg/l	Pb	Ni :	Zn	Cu	pН	Pesticides	TRPH
S1-1'	ND	13	<5	52	0.075	<25	66	68	na	6.1	na	<10
S2-1'	6.6	nap	<1	54	0.098	7.7	63	79	na	5.5	na	<10
S3-1' *:	6.1	nap	<1	49	na	<25	61	71	na	5.6	na na	<10
S4-1'	7.7	nap	<1	75	0.11	9.5	100	76	na	5.5	na	<10
S5-S	6.3	nap	na	na	na	15	na	81	34	na	4,4-DDE 0.092	<10
S5-2'	5.9	nap	na	na	na	9.6	na	74	31	na	i nd	<10
S6-S	9.5	nap	na	na	na	14	na	90	29	na	4,4-DDE 0.070	14
S6-2'	<5	nap	na	na	na	10	na	78	29	na	nd	<10
S7-S	6.5	nap	na	50	na	10	na	68	30	na	nd	<10
S7-3 S7-2'	5.2	nap	na	na	na	7.5	na	66	29	na	nd	<10
S8-S	ND	13	na	na	na	9.4	na	59	25	na	nd	<10
S8-2'	ND	13	na	na	na	6.8	na	60	30	na	nd	<10
II.	ND	13	na	na	na	12	na	74	29	na	e ar und e.	<10
S9-S S9-2'	ND	13	na	na	na	7.6	na	67	29	na	nd	<10
11	ND	13	na	43	na	11	na	58	25	na	nd	<10
S10-S S10-2'	5.1	nap	na	na	na	7	na	60	25	na	nd	<10
S10-2 S11-S	ND	13	na	45	na	13	na	74	25	na	nd	<10
S11-2'	ND	13	na	na	na	6.4	na	56	22	na	nd	<10
	6.7	nap	na	45	na	11	na	71	27	na	nd	<10
S12-S S12-2'	ND	13	na	na	na	10	na	64	24	na	Diazinon - 0.97	<10
Preliminary	מאו	10	IIα	1100								
Remediation Goals -											DDE - 1.7	
residential	22*		37	210	na	150	1600	23000	3100		Diazinon - 55	
TTLC	500		100			1000	2000	5000	2500		DDE 1	
STLC	5	nap	1	5		- 5	20	250	25		DDE 0.1	
3110	J	iiap	•	Ŭ		-				I	Diazinon - not availa	ble

na - not analyzed
nd - not detected above method detection limits
* - non cancer endpoint
nap - not applicable
As - arsenic Cd - Cadmium Cr - Chromium Pb - Lead Ni - Nickel Zn - Zinc Cu - Copper TRPH - total recoverable petroleum hydrocarbons





APPENDIX A

THE TWINING LABORATORIES, INC. STANDARD OPERATING PROCEDURES

This appendix contains the standard operating procedures used by Twining in performing the investigation. Twining observes these procedures in order to obtain consistent, reliable data.

Standard Operating Procedures for Hand Augering and Soil Sampling

Subsurface assessment permits, if required, are filed with the appropriate regulatory agencies prior to conducting field operations. Field activities are performed under the supervision of a California registered environmental assessor II. Sampling equipment is thoroughly cleaned before, during, and after each use according to Twining's "Standard Operating Procedures for Equipment Decontamination".

Hand auger soil borings are between 1.5 and 3.0 inches in diameter depending upon the size of the auger. These soil borings are advanced by turning the hand auger handle repeatedly which causes the auger bit to cut into the soil. After approximately 6 inches of advance, the bucket of the auger fills with soil cuttings and it is then removed from the borehole and the cuttings are emptied. The auger is then replaced in the borehole to advance another 6-inch interval. In this manner the borehole is extended to the designated sampling depth.

Soil samples are collected from hand auger soil borings by lowering a soil sampler equipped with a stainless-steel retention sleeve into the undisturbed soil at the bottom of the borehole. The soil sampler is then driven approximately 6 inches using a slide hammer.

The soil borings are abandoned by grouting with a 6-sack cement slurry containing 3 to 5 percent bentonite, or backfilling with clean soil. Abandonment procedures depend upon the boring depth, depth to groundwater, project objectives, and regulatory requirements.

Soil cuttings generated during hand augering are either replaced in the borings, or stockpiled, depending upon project requirements. Stockpiled soil is containerized in United States Department of Transportation-approved drums, or placed on and covered with plastic sheeting, and stored on site in an area inaccessible to the general public. Typically, the stockpiled soil is characterized by collecting and analyzing composite samples from the stockpile. Twining can recommend an appropriate method for disposition of stockpiled soil based on the analytical results. Disposal will be the responsibility of the client.

A-2 <u>Standard Operating Procedures for Equipment Decontamination</u>: Proper decontamination procedures reduce the potential for: cross-contamination among sample locations; and introduction of contamination from outside sources.

Before, during, and following drilling operations, drilling equipment is thoroughly cleaned using a high pressure hot water (steam) washer. Steam cleaning condensate will be containerized for later disposal. Generally, disposal will be the client's responsibility.

Sampling equipment and any tools, measuring devices, or other equipment which will contact soil or any media being assessed will be washed in a low-phosphate soap and water solution, and rinsed in clean water before each use. The type of soap used will depend upon project requirements.

A-3 <u>Standard Operating Procedures for Sample Handling and Chain-of-Custody</u>: Records are developed for samples which include: sampling date, sample type, location, job number, name of sampling personnel, and method of preservation. Each sample container is labelled immediately following collection. Chain-of-custody protocol, as described in United States Environmental Protection Agency, 1986, <u>Test Methods for Evaluating Solid Waste</u>, SW-846, Third Edition, is followed. Samples will be maintained at approximately 4°C. Upon arrival at the laboratory, the samples will be preserved for analysis as appropriate.

Samples may be delivered to Twining's chemistry laboratory in Fresno, California. The Twining representative in charge of the field work transport or direct the transportation of the samples and custody forms to the laboratory, where the samples are transferred to the sample control department. A receiving clerk, or an authorized analyst, signs the custody forms, present a duplicate copy to the Twining representative, and transfers the samples to a laboratory analyst. The laboratory manager retains possession of the custody forms during analyses of the samples.

The laboratory manager's responsibilities include monitoring the sample integrity within the laboratory. This involves assigning each sample a laboratory number and maintaining cross-reference between the sample's field and laboratory identifications. The analysts' responsibilities include maintaining accurate records of the samples analyzed along with the analytical data produced. This involves labelling chromatograms and maintaining the laboratory numbers on subsamples taken from the submitted samples, labelling glassware used in the analyses, and properly labelling sample extract containers with each sample's laboratory number.

Following analyses, the samples are transferred to a limited-access storage room. Chain-of-custody forms, chromatograms, and other pertinent information are filed for future reference. Splits of samples analyzed are kept for 30 days. Samples containing hazardous concentrations will be returned to the client for disposal.

A-4 <u>Standard Operating Procedures for Laboratory Quality Assurance/Quality Control</u>: These laboratory QA/QC procedures were developed to reduce outside interferences during analyses of samples. The laboratory director is responsible for creating and maintaining the program. General QA/QC procedures follow:

- Analytical instruments are serviced on a regular basis to assure accurate calibration;
- Organic-free water is monitored daily for quality;
- Gas chromatographs are calibrated daily;

Method blanks are run to check whether the glassware and reagents are free of interference from chemicals that would invalidate the analyses;

- Standards are prepared using the applicable reference materials;
- Matrix spikes are analyzed in duplicate to validate the accuracy and precision of the method; and
- During groundwater sampling, a travel blank sample consisting of organic-free water is prepared and containerized in the laboratory, transported to the site, and handled and transported in the same manner as the groundwater samples.

eur Mander (Composition Commission de La Mander de Republica de Medicare de La marchage de La commission de La Manger de gant de Mander d'America de la commission de la commenta de la commission de la Miller de la commiss L'America de la commission de la commissio

- and the contribution of th
 - Control of the Contro
 - Control Contro
 - - Communication of the Communica
 - 1992) Assaulta Artinista, sija kan mendelah kancalah kenjadi mendelah kenjadi kenjadi kenjadi kenjadi kenjad Banan kenjadi kenjadi
 - active months and growing the control of the contro

APPENDIX B LABORATORY ANALYTICAL DATA SHEETS

and the same of the same

BOOKER WINDOWS CONTRACTOR STATE



January 03, 2005

Work Order #: 4H24029

Jan Alfson Twining Environmental Department 2527 Fresno Street Fresno, CA 93721

RE: Morgan Hill Browman

Enclosed are the analytical results for samples received by our laboratory on 08/24/04. For your reference, these analyses have been assigned laboratory work order number 4H24029.

All analyses have been performed according to our laboratory's quality assurance program. All results are intended to be considered in their entirety, The Twining Laboratories, Inc. (TL) is not responsible for use of less than complete reports. Results apply only to samples analyzed.

If you have any questions, please feel free to contact us at the number listed above.

Sincerely,

The Twining Laboratories, Inc.

Ronald J. Boquist

Director of Analytical Chemistry

2000年代,1985年(1995年) 2000年代,北海海灣 新疆灣縣(1985年) 2001年(1986年)



 $t_{\rm s}$

Committee of the Commit

taling and several sev

JA.

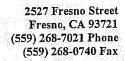
Secretary of the stages

en jako en erika talah berasar dan berasak atau berasak atau di dibukan di dipendentengan dian di berasak atau Berasak di terminak atau bindan taun dan katau tengga di memberasak atau temberasak di dibukan di dibukan term

en en en significa de la companya d La companya de la co La companya de la co

and the second s

CONTRACTOR CONTRACTOR





Twining Environmental Department 2527 Fresno Street

Fresno CA, 93721

Project: Morgan Hill Browman Project Number: A07261.02

Project Manager: Jan Alfson

Reported:

01/03/05

ANALYTICAL REPORT FOR SAMPLES

Sample ID		Laboratory ID	Matrix	Date Sampled	Date Received
S1@1'	Seek to be a line of the	4H24029-01	Soil	08/24/04 05:45	08/24/04 15:08
S2@1'		4H24029-02	Soil	08/24/04 06:20	08/24/04 15:08
S3@1'		4H24029-03	Soil	08/24/04 06:34	08/24/04 15:08
S4@1'		4H24029-04	Soil	08/24/04 07:07	08/24/04 15:08
S5@Surface		4H24029-05	Soil	08/24/04 07:23	08/24/04 15:08
S5@2'		4H24029-06	Soil Annual Control	08/24/04 07:41	08/24/04 15:08
S6@Surface		4H24029-08	Soil	08/24/04 08:09	08/24/04 15:08
\$6@2'		4H24029-09	Soil	08/24/04 08:38	08/24/04 15:08
S7@Surface		4H24029-10	Soil	08/24/04 09:09	08/24/04 15:08
S7@2'		4H24029-11	Soil	08/24/04 09:21	08/24/04 15:08
S8@Surface		4H24029-12	Soil	08/24/04 09:45	08/24/04 15:08
S8@2'		4H24029-13	Soil	08/24/04 10:07	08/24/04 15:08
S9@Surface		4H24029-14	Soil	08/24/04 10:24	08/24/04 15:08
S9@2'		4H24029-15	Soil	08/24/04 10:37	08/24/04 15:08
S10@Surface		4H24029-16	Soil	08/24/04 10:51	08/24/04 15:08
S10@2'		4H24029-17	Soil	08/24/04 11:01	08/24/04 15:08
S11@Surface		4H24029-18	Soil	08/24/04 11:17	08/24/04 15:08
S11@2'		4H24029-19	Soil	08/24/04 11:27	08/24/04 15:08
S12@Surface		4H24029-20	Soil	08/24/04 11:44	08/24/04 15:08
S12@2'		4H24029-21	Soil	08/24/04 11:51	08/24/04 15:08



Twining Environmental Department 2527 Fresno Street

Fresno CA, 93721

TRPH

Project: Morgan Hill Browman Project Number: A07261.02

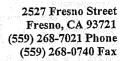
Project Manager: Jan Alfson

Reported:

01/03/05:

S1@1' 4H24029-01 (Soil)

		Reporting								
Analyte	Result	Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	
Inorganics										
рH	6.			pH Units	1	T4I0810	09/08/04	09/08/04	EPA 9045C	. 751
Metals										
Arsenic	N	D 25	13	mg/kg	5	T4H2606	08/26/04	09/01/04	EPA 6010B	
Cadmium	N	D 5.0		mg/kg	. 5	T4H2606	08/26/04	09/01/04	EPA 6010B	
Chromium	5	2 25		mg/kg	5	T4H2606	08/26/04	09/01/04	EPA 6010B	
Lead	N	D 25		mg/kg	5	T4H2606	08/26/04	09/01/04	EPA 6010B	
Nickel	6	6 25		mg/kg	5	T4H2606	08/26/04	09/01/04	EPA 6010B	
Zinc	6	8 25		mg/kg	5	T4H2606	08/26/04	09/01/04	EPA 6010B	
Semi-Volatile Organics										
TRPH	N	D 10		mg/kg	1	T4H2611	08/26/04	08/26/04	SM 5520F	





Twining Environmental Department 2527 Fresno Street

Fresno CA, 93721

Project: Morgan Hill Browman Project Number: A07261.02

Project Manager: Jan Alfson

Reported:

01/03/05:

S2@1' 4H24029-02 (Soil)

Analyte	4,	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	
Inorganics											
р Н		5.5			pH Units	1	T4I0810	09/08/04	09/08/04	EPA 9045C	
Metals											
Arsenic		6.6	5.0	2.6	mg/kg	. 1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Cadmium		ND	1.0		mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Chromium		54	5.0		mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Lead		7.7	5.0	And a second	mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Nickel		63	5.0		mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Zinc		79	25		mg/kg	5	T4H2733	08/27/04	09/03/04	EPA 6010B	
Semi-Volatil	e Organics										
TRPH		ND	11 0 00		mg/kg	1	T4H2611	08/26/04	08/26/04	SM 5520F	



Twining Environmental Department 2527 Fresno Street

Fresno CA, 93721

TRPH

Project: Morgan Hill Browman Project Number: A07261.02

Project Manager: Jan Alfson

Reported:

01/03/05

S3@1' 4H24029-03 (Soil)

Analyte	Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	
Inorganics										
pH	5.	6		pH Units	1	T4I0810	09/08/04	09/08/04	EPA 9045C	
Metals										
Arsenic	6.	1 5.0	2.6	mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Cadmium	N	D 1.0		mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Chromium	4	9 5.0		mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Lead	N	D 25		mg/kg	5	T4H2733	08/27/04	09/03/04	EPA 6010B	
Nickel	6	1 5.0		mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Zinc		1 25		mg/kg	5	T4H2733	08/27/04	09/03/04	EPA 6010B	
Semi-Volatile Organics										. 128.

mg/kg

T4H2611 08/26/04

08/26/04 SM 5520F

ND

10



Twining Environmental Department 2527 Fresno Street

Fresno CA, 93721

Project: Morgan Hill Browman Project Number: A07261.02

Project Manager: Jan Alfson

Reported:

01/03/05

S4@1'

4H24029-04 (Soil)

Analyte		Result	Reporting Limit	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	
Inorganics pH	121	vii sovo 5.5	58° (188)		pH Units	1	T4I0810	09/08/04	09/08/04	EPA 9045C	
Metals					ř			1.7			
Arsenic		7.7	5.0	2.6	mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Cadmium		ND	1.0		mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Chromium		75	5.0		mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Lead		9.5	5.0		mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Nickel		100	5.0		mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Zinc		76	25		mg/kg	5	T4H2733	08/27/04	09/03/04	EPA 6010B	
Semi-Volatile	Organics	Š	1 111	- 2 3	à .			717.33	1774		
TRPH		ND	10		mg/kg	1	T4H2611	08/26/04	08/26/04	SM 5520F	



Twining Environmental Department 2527 Fresno Street

Fresno CA, 93721

Project: Morgan Hill Browman Project Number: A07261.02

Project Manager: Jan Alfson

Reported:

01/03/05

S5@Surface

4H24029-05 (Soil)

Analyte	Result	Reporting Limit	М	DL	Units	Dilution	Batch	Prepared	Analyzed	Method	
Metals											
Arsenic	6.3	5.0	. 2	2.6	mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Copper	34	5.0			mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Lead	15	5.0			mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Zinc	81	25			mg/kg	5	T4H2733	08/27/04	09/03/04	EPA 6010B	
Semi-Volatile Organics											
alpha-BHC	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
gamma-BHC (Lindane)	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Heptachlor	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Aldrin	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
beta-BHC	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
delta-BHC	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Heptachlor epoxide	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endosulfan I	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
gamma-Chlordane	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
alpha-Chlordane	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
4.4′-DDE	0.092	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Dieldrin	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endrin	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
4,4'-DDD	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endosulfan II	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
4,4'-DDT	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endrin aldehyde	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endosulfan sulfate	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Methoxychlor	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endrin ketone	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Toxaphene	ND	0.50			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Chlordane	ND	0.50			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Surrogate: Tetrachloro-meta-xy	ylene (TMX)			75.1 %		·130	T4H3104	08/30/04	09/02/04		
Surrogate: Decachlorobipheny	l (DCB)			63.1 %	70-	-130	T4H3104	08/30/04	09/02/04		
Thionazin	ND	1.0			mg/kg	1	T4H3107	08/31/04	09/01/04		
Phosdrin	ND	0.50			mg/kg	1	T4H3107	08/31/04	09/01/04		
Ethoprop	ND	0.10			mg/kg	1	T4H3107	08/31/04	09/01/04		
Naled	ND	5.0			mg/kg	1	T4H3107	08/31/04	09/01/04		
Phorate	ND	0.10			mg/kg	1	T4H3107	08/31/04	09/01/04		
Dimethoate	ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A	



Twining Environmental Department 2527 Fresno Street

Fresno CA, 93721

Project: Morgan Hill Browman Project Number: A07261.02

Project Manager: Jan Alfson

Reported:

01/03/05

S5@Surface

4H24029-05 (Soil)

Analyte	× .	Result	Reporting Limit	u ya e M	DL	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Orga	nics										
Simazine	9 7.49	ND	0.025	na anakan na mina mininga kata		mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Atrazine		ND	0.025			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Demeton-o		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Demeton-s		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Disulfoton		ND	0.10			mg/kg	. 1	T4H3107	08/31/04	09/01/04	EPA 8141A
Diazinon		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Parathion-methyl	3.45%	ND	0.50			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Ronnel		ND	0.50			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Malathion		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Fenthion		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Parathion-ethyl		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Chlorpyrifos		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Trichloronate		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Stirophos		ND	1.0			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Fensulfothion		ND	0.50			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Ethion		ND	0.10			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Bolstar		ND	1.3			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Azinphos-methyl		ND	5.0			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Coumaphos		ND	1.0	MI 1 7 1 1 1		mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Surrogate: Triphenyl ph	osphate	AT STREET	11 (14.48V) 1	algorithms.	73.5 %	70	130	T4H3107	08/31/04	09/01/04	EPA 8141A
Dalapon	7 M M	ND	1.0			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
Dicamba		ND	0.030			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
MCPP		ND	30			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
MCPA		ND	30			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
Dichloroprop		ND	0.30			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
2,4-D		ND	0.30			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
2,4,5-TP (Silvex)		NE				mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
2,4,5-T		NE	0.030			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
2,4-DB		NE				mg/kg	. 1	T4I0212	09/01/04	09/02/04	EPA 8151A
Dinoseb		NE				mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
Surrogate: 2,4-Dichloro	nhenvlar	25 35	-1 -1141	1.0471	62.3 %	29-	115	T4I0212	09/01/04	09/02/04	EPA 8151A
TRPH	21.01.91.40	NI.	O 10			mg/kg	1	T4H2611	08/26/04	08/26/04	SM 5520F



Twining Environmental Department 2527 Fresno Street

Fresno CA, 93721

Project: Morgan Hill Browman Project Number: A07261.02

Project Manager: Jan Alfson

Reported:

01/03/05

S5@2' 4H24029-06 (Soil)

	Result	Reporting Limit	*	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	
Analyte	Kesmi	Limit		TAIDIN	Ullis .	Dhanon	Datch	Ticharen	Allalyzeu	TYICHICA	
Metals										arakaran (Ar	
Arsenic	5.9	5.0		2.6	mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	1.22
Copper	31	5.0			mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Lead	9.6	5.0			mg/kg	1	T4H2733	08/27/04	09/03/04	EPA 6010B	
Zinc	74	25			mg/kg	5	T4H2733	08/27/04	09/03/04	EPA 6010B	
Semi-Volatile Organics	N E	Tarana ay									
alpha-BHC	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
gamma-BHC (Lindane)	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Heptachlor	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Aldrin	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
beta-BHC	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
delta-BHC	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Heptachlor epoxide	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endosulfan I	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
gamma-Chlordane	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
alpha-Chlordane	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
4.4'-DDE	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Dieldrin	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endrin	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
4,4'-DDD	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endosulfan II	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	er in seem
4,4'-DDT	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endrin aldehyde	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endosulfan sulfate	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Methoxychlor	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Endrin ketone	ND	0.050			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Toxaphene	ND	0.50			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	
Chlordane	ND	0.50			mg/kg	1	T4H3104	08/30/04	09/02/04	EPA 8081A	TV A GALLERY COM Commonwealth
Surrogate: Tetrachloro-meta-xy	vlene (TMX)			75.1 %	70-	130	T4H3104	08/30/04	09/02/04	EPA .	808IA
Surrogate: Decachlorobiphenyi	l (DCB)			81.1 %	70-	130	T4H3104	08/30/04	09/02/04	EPA :	8081A
Thionazin	ND	1.0			mg/kg	. 1	T4H3107	08/31/04	09/01/04	EPA 8141A	
Phosdrin	ND	0.50			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A	
Ethoprop	ND	0.10			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A	
Naled	ND	5.0			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A	
Phorate	ND	0.10			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A	•
Dimethoate	ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A	Ļ
									1.11.5		



Twining Environmental Department 2527 Fresno Street

Project: Morgan Hill Browman Project Number: A07261.02

Reported:

Fresno CA, 93721

Project Manager: Jan Alfson

01/03/05

S5@2' 4H24029-06 (Soil)

Analyte See 1	i w	Result	Reporting Limit	(ST) -	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method
Semi-Volatile Orga	anics	the state of the s		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					00/01/01	00/01/04	TD 101411
Simazine		ND	0.025			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Atrazine		ND	0.025			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Demeton-o		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Demeton-s		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Disulfoton		ND	0.10	The state Annual species of		mg/kg	- 1	T4H3107	08/31/04	09/01/04	EPA 8141A
Diazinon	- 1.5 mm	ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Parathion-methyl		ND	0.50			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Ronnel		ND	0.50			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Malathion		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Fenthion	19 3 4448	ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Parathion-ethyl		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Chlorpyrifos		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Trichloronate		ND	0.25			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Stirophos		ND	1.0			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Fensulfothion		ND	0.50			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Ethion		ND	0.10			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Bolstar		ND	1.3			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Azinphos-methyl		ND	5.0			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Coumaphos		ND	1.0			mg/kg	1	T4H3107	08/31/04	09/01/04	EPA 8141A
Surrogate: Triphenyl ph	iosphate				76.5 %	70	130	T4H3107	08/31/04	09/01/04	EPA 8141A
Dalapon		ND	1.0			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
Dicamba		ND	0.030			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
MCPP		ND	30			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
MCPA		ND	30			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
Dichloroprop		ND	0.30			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
2,4-D		ND	0.30			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
2,4,5-TP (Silvex)		ND	0.030			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
2,4,5-T		ND	0.030			mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
2,4-DB		ND	0.30	1978/407		mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
Dinoseb		ND	0.30	1		mg/kg	1	T4I0212	09/01/04	09/02/04	EPA 8151A
Surrogate: 2,4-Dichlore	ophenyla	cetic acid	11121	Virtuality and a	62.3 %	29-	115	T4I0212	09/01/04	09/02/04	EPA 8151A
TRPH		ND	10			mg/kg	1	T4H2611	08/26/04	08/26/04	SM 5520F